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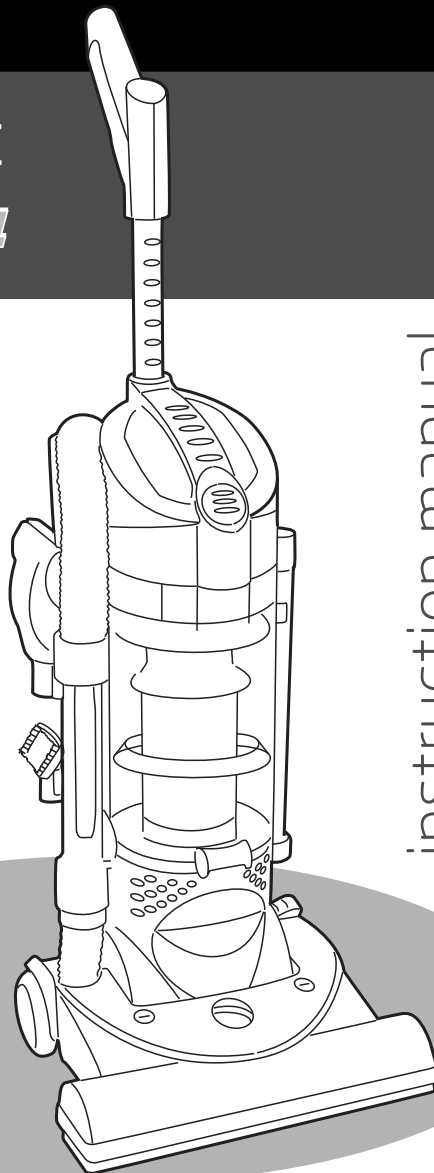
Bagless upright

MACH³ ***MACH⁴***

Vax model number:
U90-M3 series
U90-M4 series

WARNING: This cleaner has a constantly rotating brushbar which, when left in contact with lino, parquet and other hard flooring could potentially cause some damage to the floor surface.

NOTE: Vax recommends that you raise the height of the brushbar when using this cleaner on lino and hard flooring. Vax cannot be held responsible for damage to these surfaces if the user fails to take notice of this recommendation.



instruction manual

Version 1.4

vax.co.uk

Please read carefully before using this cleaner.
Always fully extend the mains cable before use.
Retain for future reference.

1. Diagram

U90-M3 / U90-M4

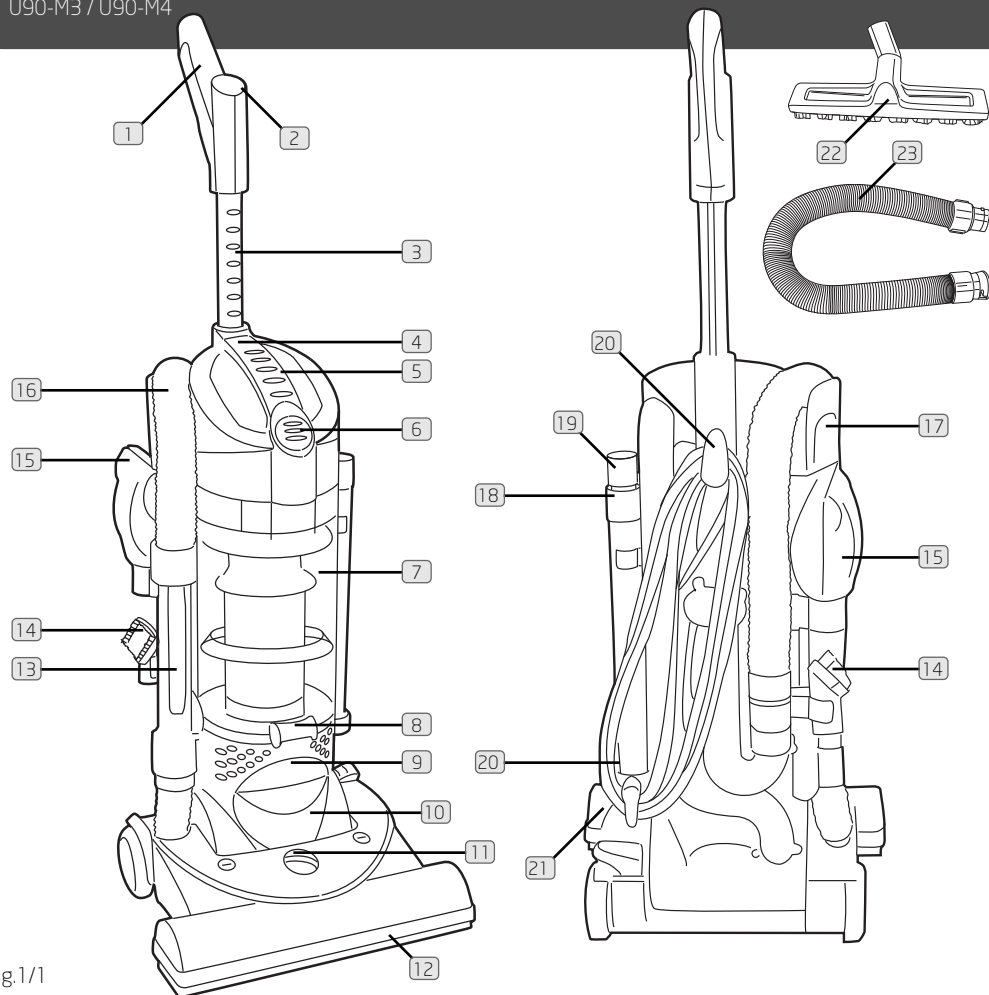


Fig.1/1

PLEASE NOTE: some parts may vary according to model. Please check inside flap of box for more details.

- | | | |
|---|--|--|
| 1 Handle grip | 10 Headlight | 18 Extension tubes |
| 2 On/off switch | 11 Carpet height adjuster
(located on back of dirt container) | 19 Crevice tool |
| 3 Telescopic handle | 12 Furniture guard | 20 Quick release cord hooks |
| 4 Handle release button | 13 Hose handle | 21 Handle release pedal |
| 5 Carry handle | 14 2-in-1 tool | 22 Hard floor tool
(Some models only) |
| 6 Dirt container release button | 15 TurboTool | 23 Additional stretch hose
(Some models only) |
| 7 Dirt container assembly | 16 Hose | |
| 8 Dirt container hinge | 17 Hose/tool holder | |
| 9 Stair cleaning handle
(located below edge of dirt container) | | |


2 parts overview


2. Safety Information


For Household Use Only


When using the vacuum cleaner, basic safety precautions should always be observed, including the following:

1. Only use the vacuum cleaner indoors on dry surfaces. Do not handle the plug or vacuum cleaner with wet hands. Do not use outdoors or on wet surfaces.
2. Turn off the vacuum cleaner controls before disconnecting or connecting from the mains supply.
3. Always unplug the vacuum cleaner before connecting or disconnecting the hose and accessories.
4. Children should be supervised to ensure that they do not play with the appliance.
5. This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
6. Use only as described in this manual. Use only Vax recommended attachments.
7. Do not use the vacuum cleaner if it has been dropped, damaged, left outdoors or dropped into water. Do not use the vacuum cleaner with a damaged cord or plug. If the supply cord is damaged, it must be replaced by the manufacturer or a recommended Service Agent to avoid hazard and invalidating the guarantee.
8. Do not pull or carry by cord/hose. Do not use the cord/hose as a handle, close a door on the cord/hose or pull cord/hose around sharp edges or corners. Do not run the vacuum cleaner over the cord/hose. Keep the cord away from heated surfaces.
9. Do not put any objects into openings. Do not use with any openings blocked and do not restrict airflow. Keep all openings free of dust, lint, hair or anything that might reduce airflow.
10. Keep hair, loose clothing, fingers and all parts of the body away from openings and moving parts.
11. Do not pick up hot coals, cigarette butts, matches or any hot, smoking or burning objects.
12. Do not pick up flammable or combustible materials (lighter fluid, petrol, kerosene etc.) or use in the presence of explosive liquids or vapours.
13. Do not vacuum up harmful or toxic material (chlorine, bleach, ammonia, drain cleaner etc.).
14. Do not vacuum up hard or sharp objects such as glass, nails, screws, coins, etc.
15. Do not use without ALL of the filters in place.
16. Take extra care when vacuuming on stairs.
17. Keep vacuuming area well lit.
18. Store the vacuum cleaner in a cool, dry area.
19. Turn off the on/off switch before unplugging the vacuum cleaner
20. Use only CE-approved 13 amp extension cords. Non-approved cords may overheat. Care should be taken to arrange the cord so that the cord cannot be tripped over.

 **WARNING:** Always switch off and unplug the vacuum cleaner from the electrical outlet before assembling, opening or emptying the dirt container, or before connecting/disconnecting the attachments.

 **CAUTION:** The vacuum cleaner is a very powerful unit. Before plugging the cord into the electrical outlet, make sure the switch is in the 'off' position. Hold the vacuum cleaner firmly when starting and in use.


 **IMPORTANT:** If the inlet, hose or extension tube is blocked, switch off the vacuum cleaner and remove the blockage(s) before re-starting the vacuum cleaner.

 **IMPORTANT:** Cleaning filters regularly maintains vacuum performance. Make sure all filters are replaced back into the vacuum cleaner before using.

This vacuum cleaner is intended for household use only and not for commercial or industrial use.

PLEASE KEEP THESE INSTRUCTIONS FOR FURTHER USE.

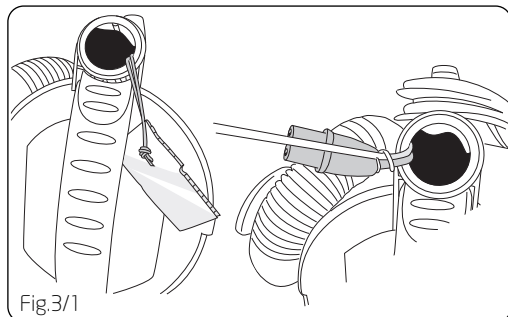
Motor Thermostat

 **IMPORTANT:** The motor is equipped with a thermal cut-out. If for any reason, the vacuum cleaner should over-heat, the thermostat will automatically turn the unit off. Should this occur, unplug the vacuum cleaner from the electrical outlet and turn off the switch. Remove the dirt container and empty. Clean the filters. Allow the cleaner to cool for approximately one (1) hour. To re-start, plug into an electrical outlet and switch back on.

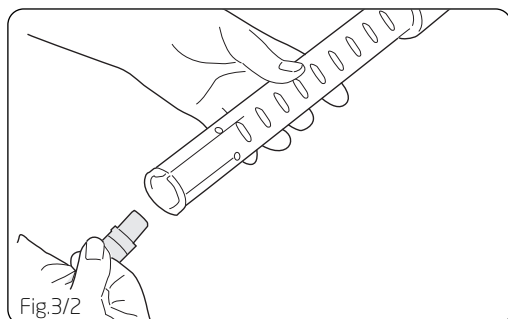
3. How to assemble

Attach Handle

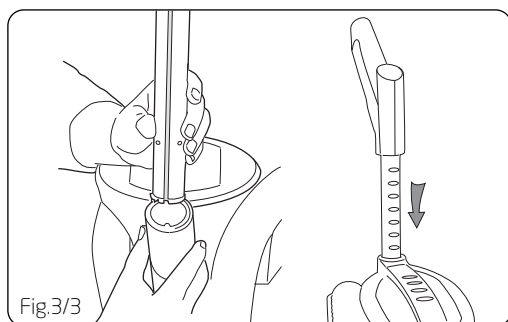
Grasp orange tie wrap and pull until the black plug comes out of the handle cavity (Fig.3/1).



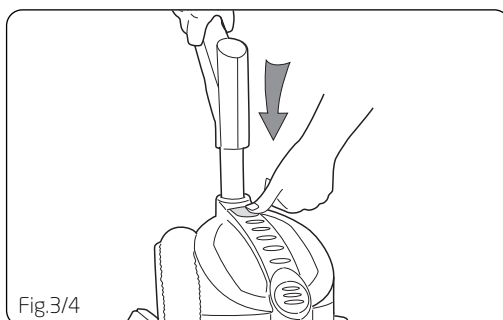
Hold plug with one hand; upper handle with the other hand. Push plug into upper handle, aligning with opposite end of plug and push firmly until you hear a snap or click (Fig.3/2). After ends are connected, pull on plug to make sure it is securely attached.



Align the groove on the back of the upper handle with the small projection on the back of the handle housing. Push upper handle down until you hear a click (Fig.3/3).

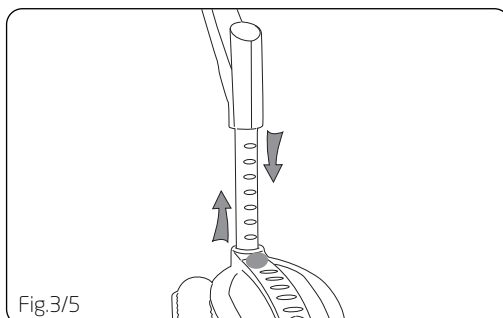


Press button at handle base and push handle all the way down (Fig.3/4).



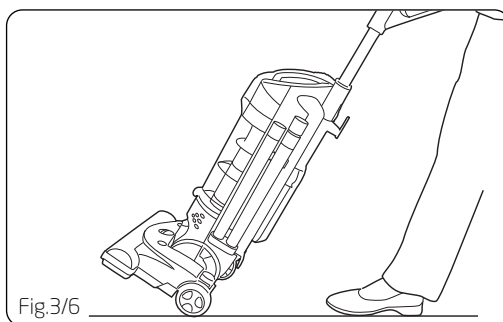
Adjusting Handle

For convenience in storing or carrying your cleaner, the handle is designed to retract into the body of the cleaner. Lower the handle by depressing the button located at the handle base and pushing the handle down. Raise the handle by depressing the button and pulling the handle upward, locking it into the desired position (Fig.3/5).



Transporting Cleaner

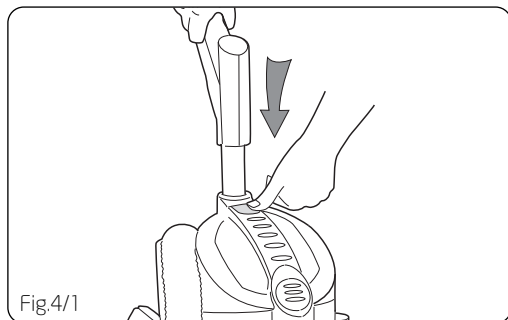
To move your cleaner from room to room, put handle in upright position, tilt cleaner back on rear wheels and push forward (Fig.3/6).



4. How to operate

Carrying Cleaner

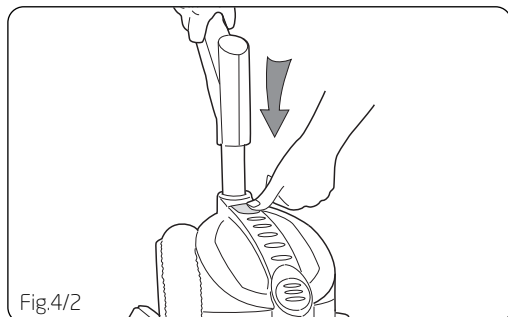
The cleaner can also be moved by using the carrying handle (Fig.4/1).



Handle Positions

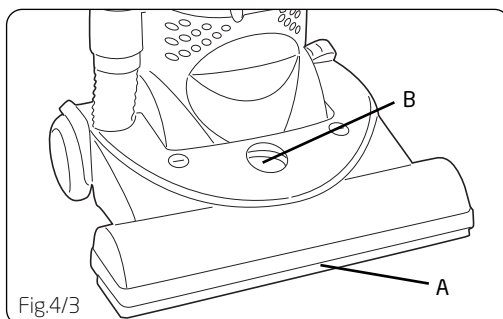
The handle of your cleaner has three positions; upright for storage and when using cleaning tools; operating position for general operation on carpet and floors; low for reaching under low furniture.

Step on handle release lever to lower handle (Fig.4/2).



Carpet Height Adjustment

The cleaning of carpet and rugs takes place at the nozzle (A). When it is necessary to raise and lower the nozzle for various carpet pile heights, place handle in upright position and turn the carpet height adjuster (B) to the desired setting (Fig.4/3).



NOTE: The nozzle will not move into the adjusted position until the cleaner handle is lowered to the operating position.

Settings

For maximum cleaning performance, the following carpet height settings are recommended:

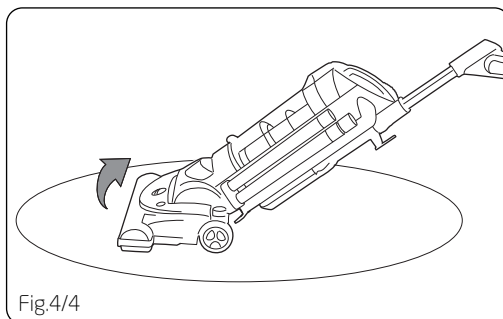
- Lowest setting: for all types of carpet.

NOTE: If the cleaner is difficult to push, turn knob to the next higher setting.

- Higher settings: for very deep pile carpet, where easier pushing effort is desired, while maintaining good cleaning performance.

Cleaning Lightweight Flexible Rugs

Stand on one end of rug and move cleaner toward other end or edge. Before reaching edge, push down on handle. This will lift up the nozzle (front of cleaner) as shown and will prevent rug from clinging to cleaner (Fig.4/4).



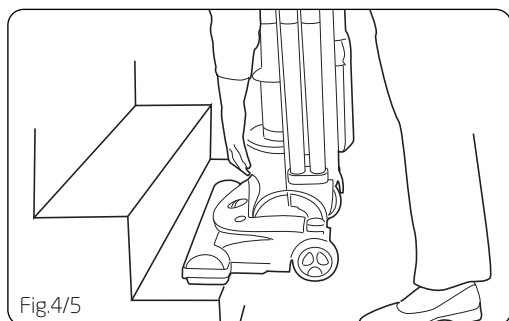
WARNING: This cleaner has a constantly rotating brushbar which, when left in contact with lino, parquet and other hard flooring could potentially cause some damage to the floor surface.

NOTE: Vax recommends that you raise the height of the brushbar when using this cleaner on lino and hard flooring. Vax cannot be held responsible for damage to these surfaces if the user fails to take notice of this recommendation.

Continue to lift up nozzle so that when you have reached the edge, it is completely off the rug. Move cleaner back to start again, lower nozzle, and use only forward strokes.

Stair Cleaning

A stair cleaning handle has been designed for ease in using your cleaner on stairs. With handle in operating position, place fingers under edge of stair cleaning handle and guide cleaner with other hand on upper handle (Fig.4/5).



As an alternative, you may use the hose and power hand tool for stair cleaning. Clean from bottom to top.

NOTE: When using cleaning tools, the brushbar will continue to rotate.

CAUTION: To avoid personal injury or unnecessary wear to carpet, and to prevent the cleaner from falling, always place it at bottom of stairs.

Cleaning Tools

Tools allow for cleaning surfaces above the floor and for reaching hard to clean areas.

The cleaner is ready for tool use when handle is in upright position.

CAUTION: The brushbar continues to rotate while cleaner handle is in upright position. Avoid tipping cleaner or setting it on furniture, fringed area rugs or carpeted stairs during tool use.

How to Clean Tools

To clean the hose, wipe off dirt with a cloth dampened in a mild detergent. Rinse with a damp cloth.

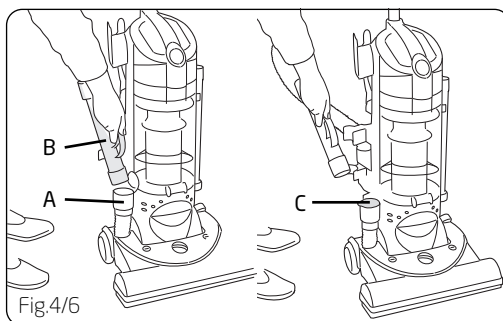
Cleaning tools may be washed in warm water with a detergent. Rinse and air dry before using.

Removing Hose

When using cleaning tools, cleaner handle should be in the upright position. Turn cleaner OFF before disconnecting and connecting hose to hose tube (A).

To use hose, lift hose end (B) as shown. Check to be sure the hose tube cover (C) is closed over the hose tube (Fig.4/6).

When you are finished cleaning with the tools, lift cover from hose tube and reposition hose end into tube.



Select Correct Tool

2-in-1 tool: use with brush for carved furniture, table tops, books, lamps, lighting fixtures, venetian blinds, skirting boards and shutters.

Remove brush to clean upholstered furniture, draperies, mattresses, clothing, and carpeted stairs.

TurboTool: may be used for upholstered furniture, draperies, mattresses, clothing, car interiors, and carpeted stairs.

Crevice tool: may be used in tight spaces, corners and along edges in such places as dresser drawers, upholstered furniture, stairs and skirting boards.

Wands: are used to give extra length to your hose. Use them with any of the above tools.

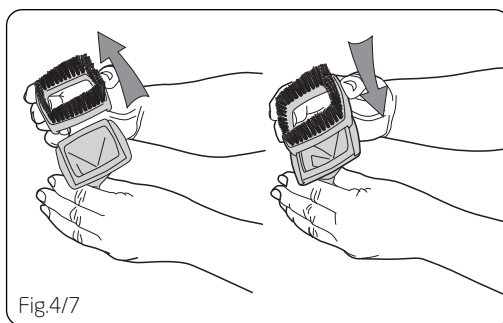
Hard floor tool: (available on some models only) use on hard surface floors.

Attach Wand and Tools

Attach tool or wand to the hose. Attach tool to wand by pushing it firmly onto the wand. Twist wand or tool slightly to tighten or loosen the connection.

2-in-1 tool

Slide brush to remove. To replace brushes, align bottom of brush with grooves on tool. Slide brush into place (Fig.4/7).



5. Dirt container & filters: removal & replacement

NOTE: Familiarise yourself with these home maintenance tasks as proper use and care of your cleaner will ensure continued cleaning effectiveness.

Emptying the Dirt Container

Empty the dirt container before the dirt reaches the fill line (A) (Fig.5/1).

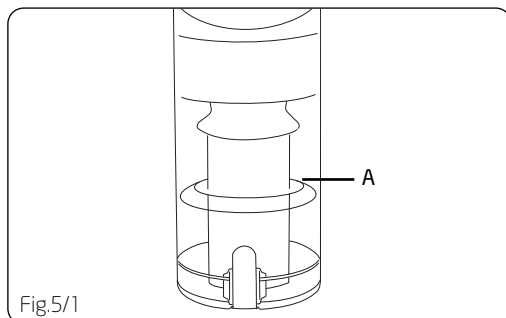


Fig.5/1

CAUTION: Very fine materials, such as face powder or flour, may seal the filter and cause a reduction in performance.

When using the cleaner for this type of dust, empty the dirt container and clean the filters often.

How to Empty

IMPORTANT: Disconnect cleaner from electrical outlet. Do not use the cleaner without dirt container or filters in place.

Press dirt container release button and pivot out (Fig.5/2).

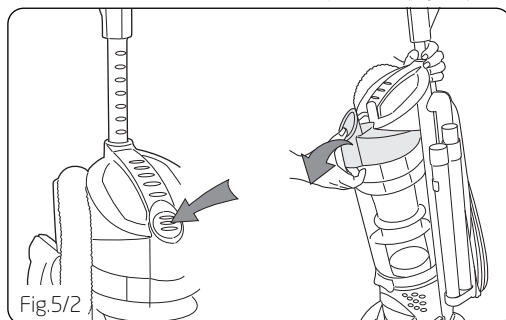


Fig.5/2

Holding the dirt container over a bin, press the release button (A) to open dirt container flap (Fig.5/3).

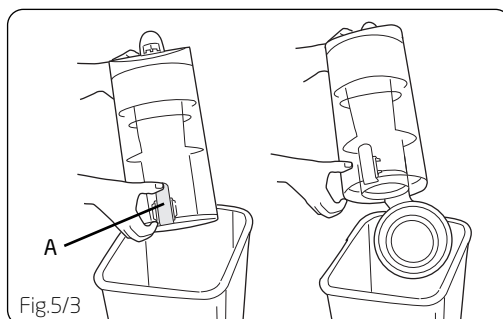


Fig.5/3

Press dirt container door release button to latch dirt container door closed.

Place bottom of dirt container in first. Pivot dirt container into cleaner body (Fig.5/4).

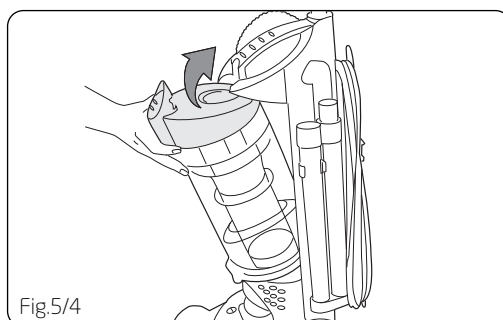


Fig.5/4

Press on dirt container release button while firmly pressing on dirt container. Release button in order for it to return to proper position and lock the dirt container into place (Fig.5/5).

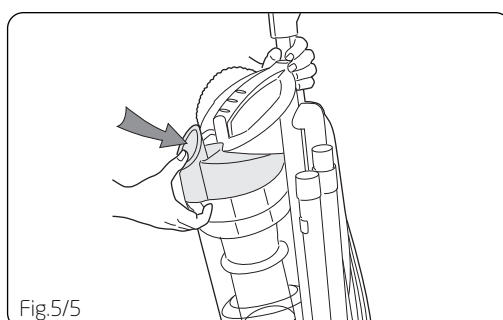


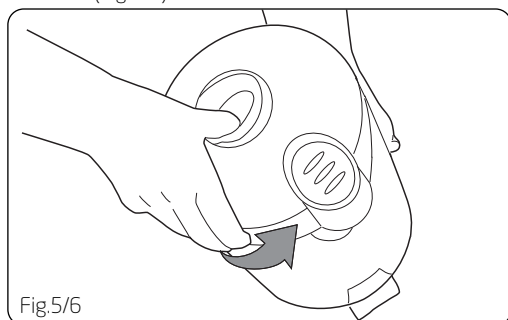
Fig.5/5

Cleaning Filters

Cleaning the Cyclonic Filter Assembly

IMPORTANT: Disconnect cleaner from electrical outlet. Do not use cleaner without dirt container or filters in place.

Remove dirt container as described above. Twist filter assembly counterclockwise. Remove assembly from dirt container (Fig.5/6).

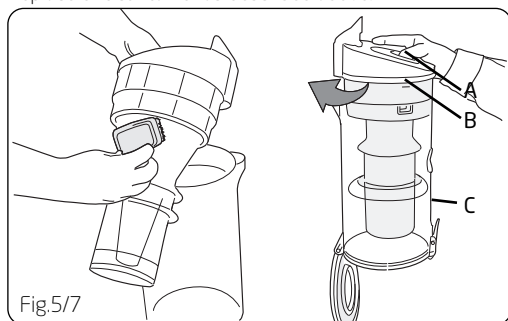


Dirt and debris can be cleaned from the filter assembly by brushing with the cleaner's combination tool.

Place the filter assembly on the dirt container, aligning tabs (A) on either side of filter with slots on dirt container (B) and twist it clockwise to secure into position.

Press dirt container door release button (C) to latch dirt container door closed (Fig.5/7).

Replace dirt container as described above.



Cleaning the Secondary Filter

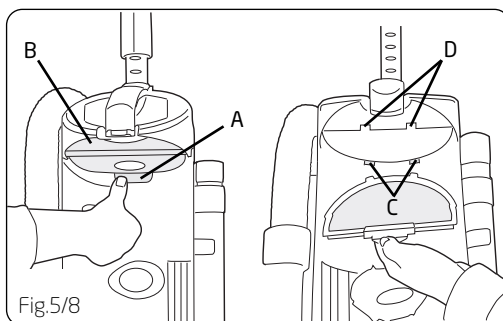
IMPORTANT: Disconnect cleaner from electrical outlet. Do not operate cleaner without dirt container or filters in place.

Remove dirt container as previously described.

Pull down on latch (A) located at the top of the dirt container cavity to remove grey filter frame (B). Remove white fabric filter and black foam filter from frame. Hand wash filters in cold water with a mild detergent.

Allow filter frame and both filters to air dry for 24 hours before replacing filters into filter frame.

Reposition filter frame by inserting tabs (C) into slots (D) on back of dirt container cavity. Rotate filter frame up toward top of dirt container cavity and snap closed (Fig.5/8).

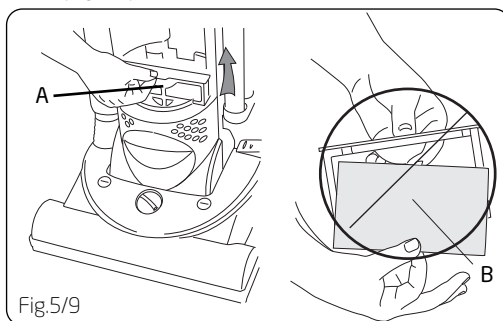


Cleaning the Final Filter

IMPORTANT: Disconnect cleaner from electrical outlet. Do not operate cleaner without dirt container or filters in place.

Remove dirt container as previously described.

Pull filter frame (A) straight out from bottom of dirt container cavity. Do not attempt to remove filter (B) from frame (Fig.5/9).



Hand wash in cold water with a mild detergent.

Allow to air dry for 24 hours before replacing frame into bottom of dirt container cavity.

6. Maintenance

Replacing the Headlight

Removing lens

Disconnect cleaner from electrical outlet.

Press handle release pedal and place handle in low position.

Using a crosshead screwdriver, remove the the screw as shown and lift off lens (Fig.6/1).

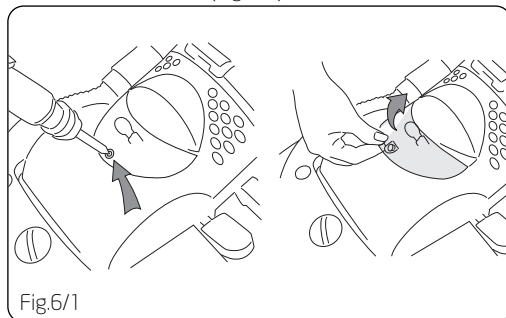


Fig.6/1

Pull old bulb straight out of socket. Push new bulb straight into socket until locked in place (Fig.6/2).

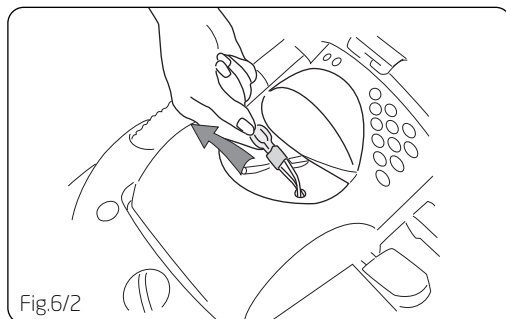


Fig.6/2

Excessive force is not required.

Reposition lens and secure with the screw.

Belt Replacement

The belt on your vacuum cleaner causes the brushbar to rotate and is important for the effective operation of the cleaner. The belt is located under the hood of the cleaner and should be checked from time to time to be sure it is in good condition.



IMPORTANT: Disconnect cleaner from electrical outlet.

To check belt, remove hood as shown below. Replace belt if it is stretched, cut or broken.

To remove the hood, press handle release pedal and place handle in low position. Using a coin, turn the two slots (A) on either side of the hood as shown (Fig.6/3).

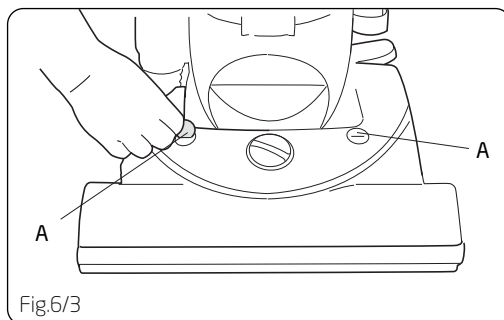


Fig.6/3

Rotate hood toward front of cleaner and remove the hood (Fig.6/4).

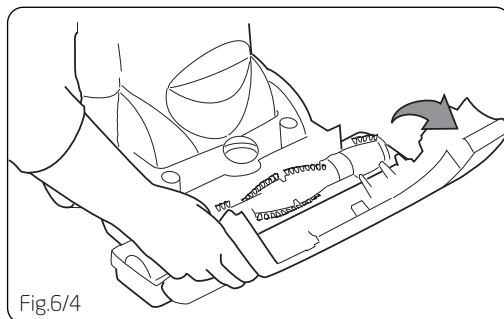


Fig.6/4

Remove brushbar and used belt (Fig.6/5). Discard used belt.

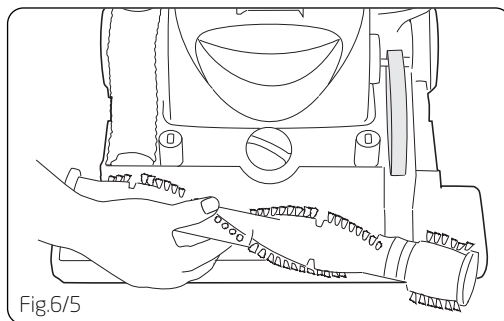


Fig.6/5

To install the new belt, with lettering on outside of belt, slide new belt over motor pulley (A). Insert brushbar through belt and place belt in belt guide (B) on brushbar (Fig.6/6).

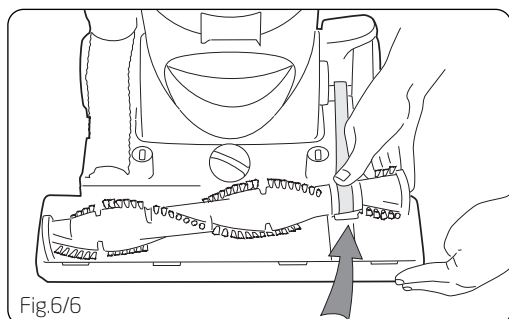


Fig.6/6

Grasp brushbar firmly and fit it into position by first sliding end opposite the belt into the rectangular slot (A) on side of cleaner.

Pull other side of brushbar (B) into place (Fig.6/7).

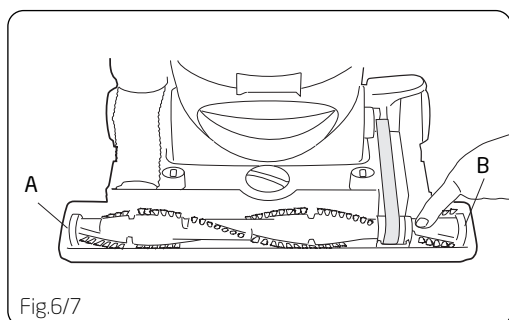


Fig.6/7

Turn brushbar making sure belt turns freely and is not pinched between brushbar and bottom of cleaner.

To replace the hood, align tabs (A) on hood with slots (B) on base of cleaner. Pivot hood into position.

Secure hood into position by turning the coin slots (Fig. 6/8).

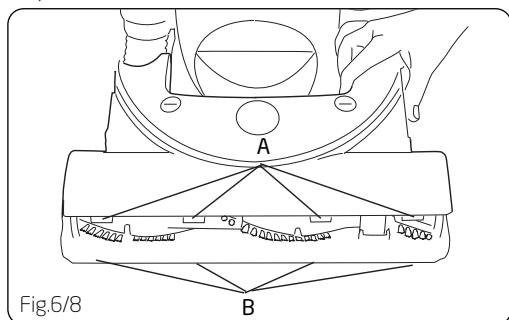


Fig.6/8

Replacing the Brushbar

When brushbar brushes are worn, the brushbar should be replaced.

! IMPORTANT: To check condition of brushes, disconnect cleaner from electrical outlet.

Move edge of a card across bottom plate while turning brushbar (Fig.6/9).

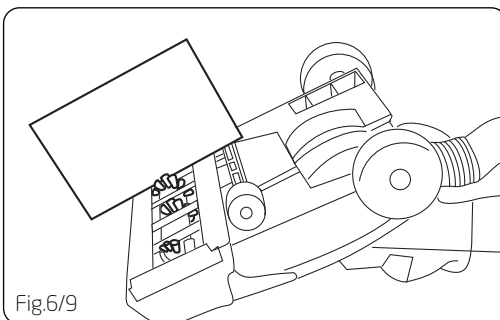


Fig.6/9

To maintain cleaning effectiveness, replace brush bar if brushes do not touch card.

TurboTool Brushbar Replacement

When brushbar brushes are worn, the brushbar should be replaced.

Remove tool from hose and turn it so bottom faces up. Press the latches on both sides of tool and remove bottom plate (A) (Fig.6/10).

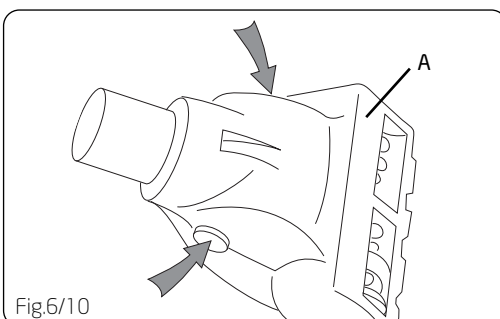


Fig.6/10

Unscrew the two crosshead screws and remove belt guard (Fig.6/11).

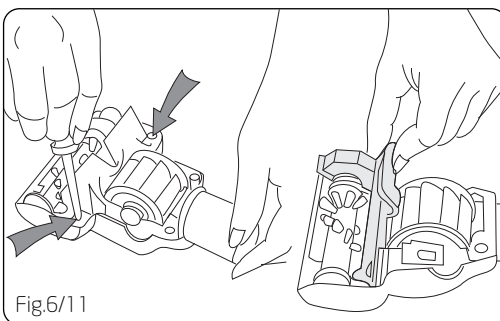
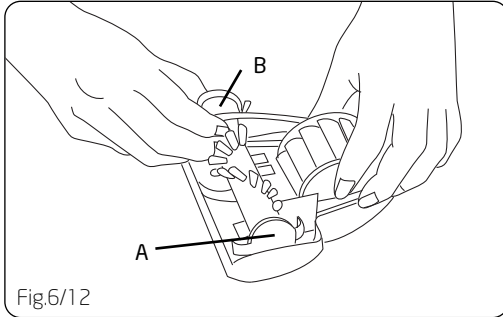


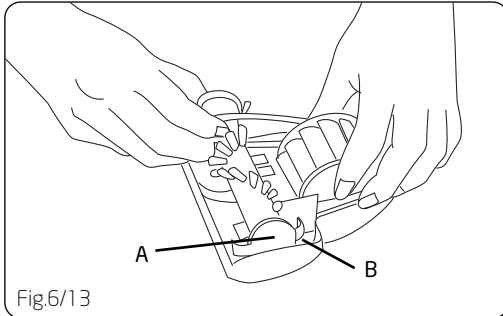
Fig.6/11

Remove brushbar including end plates (A) and discard. Inspect belt to ensure that it is in good condition. If belt is cracked, gouged or broken, replace it (see following section).

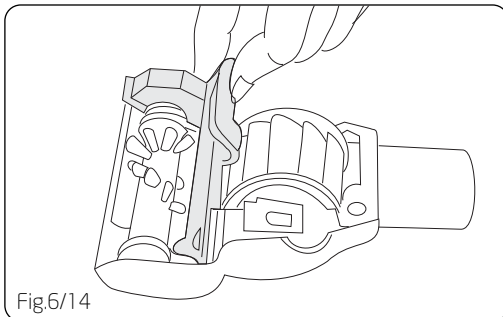
Insert brushbar through belt and position belt over gear teeth (B) on brushbar (Fig.6/12).



With curved ends down, slide end plates (A) of brushbar into slots (B) on too (Fig.6/13).



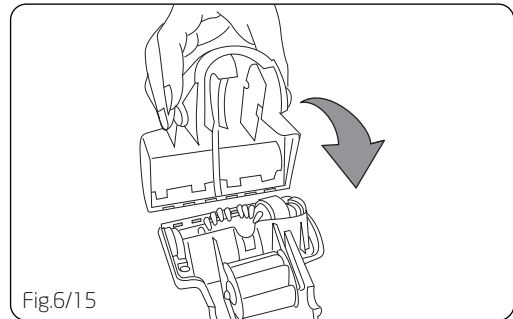
Replace belt guard (A) making sure not to pinch brush bristles in guard. Turn brushbar, to make sure it rotates freely (Fig.6/14).



Replace and tighten screws.

To replace bottom plate, insert the four tabs on edge of bottom plate into slots on front of tool.

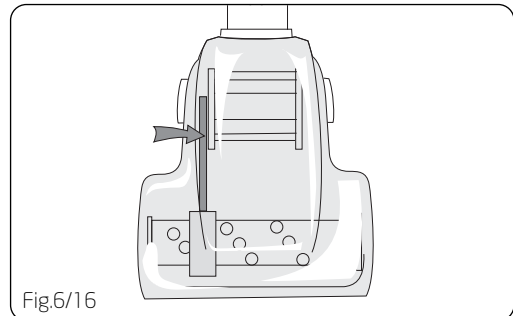
Pivot bottom plate down and snap closed (Fig.6/15).



TurboTool Belt Replacement

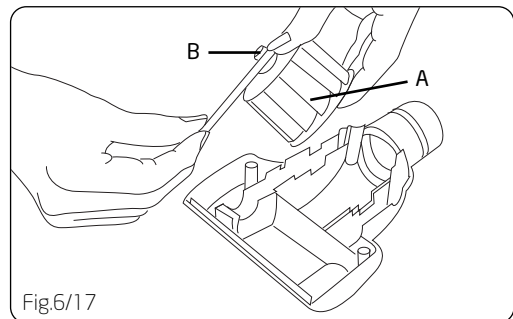
The powered TurboTool belt is designed to last a long time and is not normally replaced. However, if the belt is cracked, gouged or broken, it should be replaced.

Remove tool from hose. The belt can be seen through the top of the nozzle or by removing the bottom plate and belt guard (Fig.6/16).

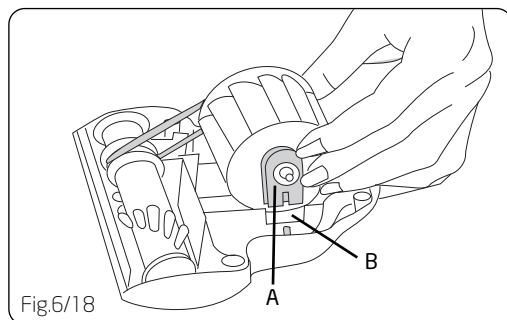


Remove tool from hose. Remove bottom plate, belt guard and brushbar as described previously.

Grasp turbine (A) and pull firmly to remove. Remove belt from turbine pulley (B). Replace with new belt (Fig.6/17).



With flat sides of turbine retainers (A) pointing down, slide retainers into grooves (B) in tool housing and snap into place (Fig.6/18).



Replace brushbar, belt guard, and bottom plate as described previously.

7. Clearing blockages

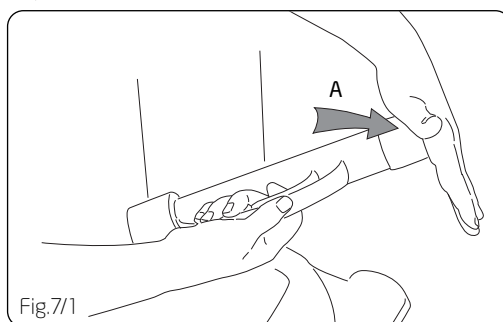
! IMPORTANT: Disconnect cleaner from electrical outlet before attempting to clear blockages.

Low suction or pick up may be due to a blockage in the system. Refer to the following steps to check for blockages continuing with each step until the blockage is found:

Check fullness of dirt container; empty if needed.

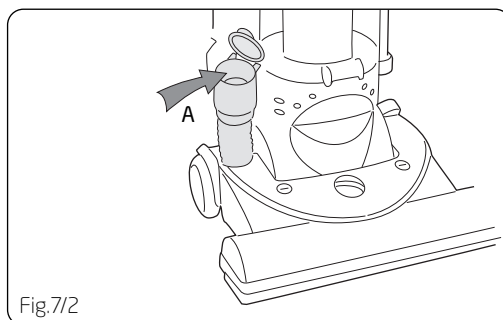
Checking Airflow Path

Plug cleaner in and turn ON. Check for suction at end of hose (A) (Fig.7/1). If there is suction, continue with next step.



Turn cleaner OFF and unplug.

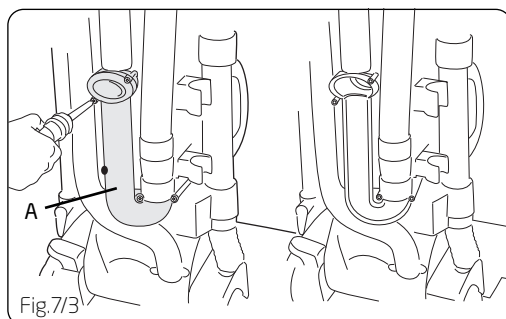
Check connection at hose tube (A); remove any blockage (Fig.7/2).



Checking Airflow Path Through Hose Inlet Tube on Back of Cleaner

Turn cleaner OFF and unplug.

If blockage can be seen in tube (A), remove 5 screws using a crosshead screwdriver. Pull tube from cleaner, remove blockage (Fig.7/3).

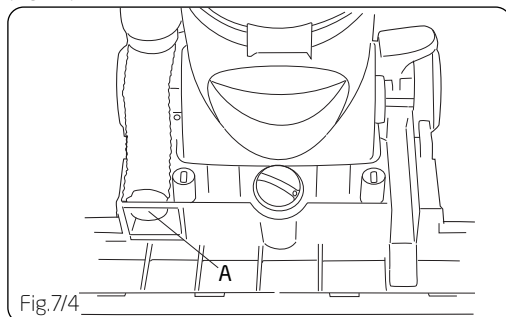


Reposition tube on back of cleaner, replace 5 screws.

Checking Under Hood

Turn cleaner OFF and unplug.

Remove hood, belt and brushbar as described in previous section. Look into opening (A) for blockages and remove (Fig. 7/4).

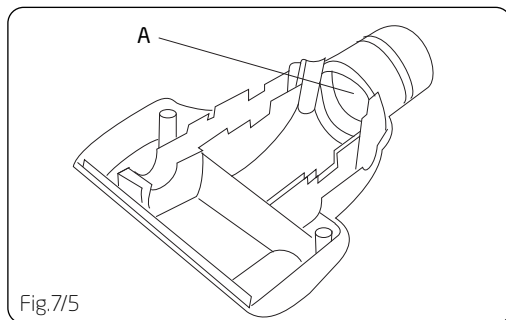


Replace belt, brushbar and hood.

If a Blockage Occurs During TurboTool Use

Disconnect powered hand tool from hose. Remove bottom plate, belt guard and turbine as described in previous section.

Remove any blockage from turbine channel (A) (Fig. 7/5).



Replace belt turbine, brush roll, belt guard and bottom plate.

8. Troubleshooting



WARNING: To reduce the risk of personal injury, unplug vacuum cleaner before servicing.

PROBLEM: Cleaner won't run

Cause: Not properly plugged into wall outlet.

Solution: Plug in firmly.

Cause: No electricity in wall outlet.

Solution: Check fuse or breaker.

Cause: Blown fuse/tripped breaker.

Solution: Reset circuit breaker or replace fuse.

Cause: Motor thermostat tripped.

Solution: Switch off and unplug the vacuum cleaner. Leave for one (1) hour. See page 3.

PROBLEM: Cleaner/tools won't pick up

Cause: Broken or worn belt.

Solution: Replace belt.

Cause: Brushbar worn.

Solution: Replace brush bar.

Cause: Dirt container full.

Solution: Empty dirt container.

Cause: Incorrect carpet height setting.

Solution: Move nozzle height control knob to lower setting.

Cause: Blockage in air flow passages.

Solution: Clear blockage - refer to section 7.

PROBLEM: Cleaner hard to push

Cause: Incorrect carpet height setting.

Solution: Move carpet height adjuster to higher setting.

PROBLEM: Smoky/burning smell detected

Cause: Belt broken or stretched.

Solution: Replace brushbar as described in Section 6.

PROBLEM: Powered Hand Tool brushbar won't turn

Cause: Too much pressure being applied to tool.

Solution: Continue using tool applying light pressure.

Cause: Blockage in turbine channel.

Solution: Remove blockage - refer to section 7.

Cause: Broken or worn belt.

Solution: Replace belt.

Cause: Low cleaner suction.

Solution: Check items under "Cleaner/tools won't pick up" above.

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9. UK Service & Help

Vax Careline:

(UK) 0844 412 8455

(ROI) 1-800 928 308

Monday-Friday 8.30am to 6.30pm.

Saturday-Sunday 9.00am to 5.00pm.

Any queries or concerns about using the Vax, call the Vax Careline. Please make a note of the serial number and model number of the carpet cleaner before calling. For the nearest Service Agent, please call the Vax Careline.

vax.co.uk

10. Consumables

To purchase spares and accessories, please visit

vax.co.uk

Belt Kit (1-9-127684-00)

11. Technical Specification

Voltage: 220 – 240V ~50Hz

Wattage: 1300W

Capacity: 2.5L

Filters: Washable pre-motor filter assembly
Washable HEPA post-motor filter assembly
Washable anti-bacterial post-motor filter
(some models only)

Cord Length: 9m approx

Weight: 9kg approx

Subject to technical change without notice.



Vax Careline: (UK) 0844 412 8455 (ROI) 1-800 928 308

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EEC STATEMENT OF COMPLIANCE

Manufacturer/EEC importer: Vax Limited, hereby on our own responsibility, declare that the U90-M3 Mach 3 series and U90-M4 Mach 4 series upright vacuum cleaners are manufactured in compliance with the following Directives:

Safety: 2006/95/EC Low Voltage Directive

EMC: 2004/108/EC Electromagnetic Compatibility Directive



Waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

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